July 2, 2009

To: J. N. McKamy Manager, Nuclear Criticality Safety Program

From: J. A. Morman Y' Chair, Criticality Safety Support Group

Subject: CSSG Response to Tasking 2009-01

Tasking 2009-01 requested that the Criticality Safety Support Group (CSSG) develop a position paper on the purpose, structure and operations of criticality safety committees (CSC) as applied to DOE sites. Under the lead of Mr. Calvin Hopper, a CSSG Sub-Group was formed to address the tasking. The CSSG Sub-Group consisted of six CSSG members and one CSSG Emeritus as follows:

Calvin M. Hopper, CSSG Deputy Chair and Team Lead Richard E. Anderson, CSSG Member David Heinrichs, CSSG Member Thomas P. McLaughlin, CSSG Member Davis A. Reed, CSSG Member Fitz Trumble, CSSG Member R. Michael Westfall, CSSG Member Emeritus

The subgroup assembled eleven CSC, or CSC-like, charters from throughout the DOE contractor community for consideration. However, the bases for developing the position paper was taken from guidance/examples provided in

:

- ANSI/ANS-8.1-1998, Nuclear Criticality Safety in Operations with Fissionable Material Outside Reactors, § 4.1, Administrative Practices,
- ANSI/ANS-8.19-2005, Administrative Practices for Nuclear Criticality Safety, §4 <u>Management Responsibilities</u>,
- DOE Office of Health, Safety and Security Voluntary Protection Program Committee Charter
- Acceptable practices for establishing senior management safety committees as provided by DOE Procedure Manual 1B, MRP 4.19, DOE Guide 440.1-8, 12-27-06 and as outlined for implementation by the Pacific Northwest National Laboratory within the DOE Voluntary Protection Program, and
- CSSG consideration for the variability of breadth and depth of DOE contractor fissionable material operations.

The position paper was developed by the CSSG Subgroup and reviewed by the entire CSSG with suggestions incorporated into the attached position paper,

cc: CSSG Members

J. Felty

N. Ellis

L. Scott

## **ATTACHMENT A**

US DOE NCSP CSSG Position Paper on the Purpose, Structure and Operation of Criticality Safety Committees

## US DOE NCSP CSSG Position Paper on the Purpose, Structure and Operation of Criticality Safety Committees

June 30, 2009

Richard E. Anderson, CSSG Subgroup Member David Heinrichs, CSSG Subgroup Member Calvin M. Hopper, CSSG Subgroup Lead Thomas P. McLaughlin, CSSG Subgroup Member Davis A. Reed, CSSG Subgroup Member Fitz Trumble, CSSG Subgroup Member R. Michael Westfall, CSSG Emeritus Subgroup Member

#### EXECUTIVE SUMMARY

The US DOE NCSP Manager Tasking 2009-01 directed the Criticality Safety Support Group (CSSG) to develop a *Position Paper on the Purpose, Structure and Operation of Criticality Safety Committees*. This position paper was developed from guidance provided in:

- ANSI/ANS-8.1-1998, Nuclear Criticality Safety in Operations with Fissionable Material Outside Reactors, § 4.1, Administrative Practices,
- ANSI/ANS-8.19-2005, Administrative Practices for Nuclear Criticality Safety, §4 Management Responsibilities,
- DOE Office of Health, Safety and Security Voluntary Protection Program Committee Charter
- Acceptable practices for establishing senior management safety committees as provided by DOE Procedure Manual 1B, MRP 4.19, DOE Guide 440.1-8, 12-27-06 and as outlined for implementation by the Pacific Northwest National Laboratory within the DOE Voluntary Protection Program, and
- Consideration for the variability of breadth and depth of DOE contractor fissionable material operations.

The position of the CSSG is that the need for establishing and the diversity of responsibilities of a CSC is highly variable depending upon the actual, or potential, inventory and form of fissionable materials that may be encountered by operations outside of nuclear reactors. That is, the need for a CSC should be risk-based with a graded approach relative to the fissionable material operations and the flexibility of the facility nuclear criticality safety program. Further, the CSSG recognizes that the senior contractor manager (SCM) is responsible to clearly establish responsibilities for nuclear criticality safety. For the purpose of this position paper, the SCM is that contractor manager with the authority and resources who can affect safety and operations program objectives and budgets. In their capacity, the SCM has the prerogative, through council with knowledgeable and experienced nuclear criticality safety specialist staff or consultants, to determine and document the basis of need, or lack of need, for establishing and defining the responsibilities of a CSC for monitoring the status of fissionable material operations and the criticality safety program.

Based upon the foregoing, the CSSG has developed its positions regarding:

- Purpose and responsibility of CSCs,
- Guidance on when the establishment of a CSC should be considered,
- Guidance on the selection of members.
- · Recommended functional interfaces with operations and management,
- Responsibilities and interactions with external organizations,
- Authority of the CSC to recommend or direct safety related changes in programs and budgets,
- Recommended responsibilities of the CSC,
- Interaction of the CSC with on-site criticality safety officers,
- Reporting, and
- Funding.

#### Those positions are:

• The purposes and responsibilities of CSCs are highly variable depending upon the magnitude of facility NCS program needs. Their primary purpose is to advise the SCM about the status and quality of their NCS program but may also provide NCS technical advice, program reviews, reviews of technical evaluations and approvals, and policy judgments.

- The need for establishing a CSC shall be evaluated whenever a facility's authorized inventory of special nuclear material in unrelated areas may exceed 700 g of <sup>235</sup>U, 500 g of <sup>233</sup>U, 450 g of <sup>239</sup>Pu, or 450 g of any combination of these three isotopes and a NCS program has established NCS operations limits and controls. Additionally, the need for establishing of a CSC shall be evaluated whenever a facility's authorized inventory will exceed the subcritical mass limits specified in the American National Standard Nuclear Criticality Control of Special Actinide Elements, ANSI/ANS-8.15-1981 (R2005). The form of the fissionable materials and the facility operations (i.e., processing, transporting, or storing) should be considered within this evaluation. With the assistance of facility nuclear criticality safety (NCS) staff expertise or recognized knowledgeable and experienced NCS specialists, the final decision to establish, or not to establish, a facility CSC shall be determined, documented, and authorized by the SCM having responsibility for both fissionable material operations and contractor safety programs. The SCM is the sponsor and delegating authority for the CSC.
- The selection of CSC Members shall be based upon the roles and responsibilities of the CSC. Those roles and responsibilities generally include the requirements outlined in ANSI/ANS-8.19-2005, *Administrative Practices for Nuclear Criticality Safety*, §4 Management Responsibilities. The Chair of the CSC shall be appointed by the SCM. Members of the CSC shall be approved by the SCM. Depending upon the inventories of fissionable materials, operations flexibility, and modifications, the CSC may be comprised of facility staff who are knowledgeable and experienced representatives such as managers of discrete facility fissionable material operations, engineering support and development, nuclear criticality safety, and quality assurance. CSCs are developed under the direction and authority of the SCM and as such the SCM may appoint additional members to the CSC as needed and may include non-facility experts in NCS or other relevant subjects.
- CSC functional interfaces with operations and management include operations and management
  membership on the CSC and their reporting about the status of their operations and the effectiveness of the
  NCS program. Frequently, the CSC may be represented on other SCM appointed executive committees.
  Additionally, the SCM may utilize the CSC, or its members, to interface with external-to-the-facility
  persons and/or organizations.
- The CSC responsibilities and interactions with external organizations are limited to the direction and authority from the SCM. However, the SCM may utilize the CSC, or its members, to interface with external-to-the-facility persons and/or organizations.
- The CSC has an advisory and review role for the SCM and as such is empowered typically to advise the SCM about suggested changes in safety related programs and budgets
- Responsibilities of the CSC are provided in detail within the body of this report
- As authorized and established by the SCM, the support and funding for the activities of the CSC members should be provided by the SCM to ensure fiscal independence from the daily operating support and funding of the CSC members.

<sup>&</sup>lt;sup>1</sup> ANSI/ANS-8.3-1997, Criticality accident alarm system, §4.2.1, American Nuclear Society, 555 North Kensington Avenue, La Grange Park, Iilinois 60526 USA.

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#### LIST OF TERMS

CSC	Criticality Safety Committee
NCS	Nuclear Criticality Safety
SCM	Senior Contractor Manager
CSO	Criticality Safety Officer

# **US DOE NCSP CSSG Position Paper** on the

## Purpose, Structure and Operation of Criticality Safety Committees

#### 1 Scope

The scope of the Position Paper is provided in the CSSG Tasking 2009-01. That Tasking is included as Appendix A to this report. The Tasking was undertaken by a CSSG Sub-Group who supplied and acquired example Criticality Safety Committee (CSC), or CSC-like, charters for consideration. However, the bases for developing the position paper were taken from ANSI/ANS consensus standards and guidance/examples.

#### 2 CSSG Sub-Group Members

The Position Paper was drafted by a CSSG Sub-Group comprised of:

- Calvin M. Hopper, CSSG Deputy Chair and Team Lead
- Richard E. Anderson, CSSG Member
- David Heinrichs, CSSG Member
- Thomas P. McLaughlin, CSSG Member
- Davis A. Reed, CSSG Member
- Fitz Trumble, CSSG Member
- R. Michael Westfall, CSSG Member Emeritus

The draft Position Paper was offered to the whole of the CSSG for review and comment. Those comments have been incorporated into this Position Paper and represent the consensus of the CSSG.

#### 3 Resource Documents Reviewed

The bases for developing the position paper were taken from the following:

- ANSI/ANS-8.1-1998, *Nuclear Criticality Safety in Operations with Fissionable Material Outside Reactors*, § 4.1, Administrative Practices,
- ANSI/ANS-8.19-2005, *Administrative Practices for Nuclear Criticality Safety*, §4 Management Responsibilities,
- DOE Office of Health, Safety and Security Voluntary Protection Program Committee Charter
- Acceptable practices for establishing senior management safety committees as provided by DOE Procedure Manual 1B, MRP 4.19, DOE Guide 440.1-8, 12-27-06 and as outlined for implementation by the Pacific Northwest National Laboratory within the DOE Voluntary Protection Program, and
- Consideration for the variability of breadth and depth of DOE contractor fissionable material operations.

- 4 Contractor CSC, or CSC-like, Charters and Charter Guidance
- 4.1 Eleven DOE contractor CSC, or CSC-like, charters were obtained for review. Those charters, were for the following contractors:
  - Y-12 National Security Complex
  - Los Alamos National Laboratory
  - Lawrence Livermore National Laboratory
  - Savannah River Site prior to Savannah River Nuclear Solutions, LLC
  - Oak Ridge National Laboratory
  - Sandia National Laboratory, TA-V
  - Sandia National Laboratory, non-TA-V
  - ISOTEK
  - Bechtel Jacobs (ETTP, Y-12, ORNL)
  - Paducah Remediation Services
  - Argonne National Laboratory prior to discontinuance
- 4.2 ANSI/ANS-8.1-1998 and ANSI/ANS-8.19-2005 Consensus Standards

Pertinent sections of ANSI/ANS-8.1-1998 and ANSI/ANS-8.19-2005 were considered for basic guidance regarding the inferred responsibilities of CSCs. Those sections are:

4.2.1 ANSI/ANS-8.1-1998, Nuclear Criticality Safety in Operations with Fissionable Material Outside Reactors.

#### § 4.1, Administrative Practices<sup>2</sup>,

4.1.1 Responsibilities. Management shall clearly establish responsibility for nuclear criticality safety. Supervisors should be made as responsible for nuclear criticality safety as they are for production, development, research, or other functions. Each individual, regardless of position, shall be made aware that nuclear criticality safety in his work area is ultimately his responsibility. This may be accomplished through training and periodic retraining of all operating and support personnel.<sup>3</sup> Nuclear criticality safety differs in no intrinsic way from industrial safety, and good managerial practices apply to both.

Management shall provide personnel skilled in the interpretation of data pertinent to nuclear criticality safety, and familiar with operations, to serve as advisors to supervisors. These specialists should be, to the extent practicable, administratively independent of process supervisors.

Management shall establish the criteria to be satisfied by nuclear criticality safety controls. Distinction may be made between shielded and unshielded facilities, and the criteria may be less stringent when adequate shielding and confinement assure the protection of personnel.<sup>4</sup>

<sup>&</sup>lt;sup>2</sup> Guidance for administrative practices is contained in American National Standard Administrative Practices for Nuclear Criticality Safety, ANSI/ANS-8.19-1996.

<sup>&</sup>lt;sup>3</sup> Guidance for the training of personnel is contained in American National Standards Nuclear Criticality Safety Training, ANSI/ANS-8,20-1991.

<sup>&</sup>lt;sup>4</sup> Guidance is provided in American National Standard Criteria for Nuclear Criticality Safety Controls in Operations with Shielding and Confinement, ANSI/ANS-8.10-1983(R1988).

- 4.2.2 ANSI/ANS-8.19-2005, *Administrative Practices for Nuclear Criticality Safety*, §4 Management Responsibilities,
  - 4.1 Management shall accept overall responsibility for safety of operations. Continuing commitment to safety should be evident.
  - 4.2 Management shall formulate nuclear criticality safety policy and make it known to all employees involved in operations with fissile material. Distinction may be made between shielded and unshielded facilities, with appropriate nuclear criticality safety controls in all cases. Guidance for the distinction between shielded and unshielded facilities may be obtained from American National Standard "Criteria for Nuclear Criticality Safety Controls in Operations with Shielding and Confinement," ANSI/ANS-8.10-1983;R1988; R1999;R2005.
  - 4.3 Management shall assign responsibility and delegate commensurate authority to implement established policy. Responsibility for nuclear criticality safety should be assigned in a manner compatible with that for other safety disciplines. Each individual, regardless of position, shall be made aware that nuclear criticality safety in his or her work area is his or her responsibility.
  - 4.4 Management shall provide personnel familiar with the physics of nuclear criticality and with associated safety practices to furnish technical guidance appropriate to the scope of operations. This function should, to the extent practicable, be administratively independent of operations.
  - 4.5 Management shall establish a training and qualification program for nuclear criticality safety staff.
  - 4.6 Management shall establish a method to monitor the nuclear criticality safety program.
  - 4.7 Management shall participate periodically in auditing the overall effectiveness of the nuclear criticality safety program.
  - 4.8 Management may use consultants and nuclear criticality safety committees to achieve the objectives of the nuclear criticality safety program.
  - 4.9 Management shall establish and maintain a configuration management system that identifies and controls changes to facility and process conditions important to nuclear criticality safety.
- 4.3 DOE Basic Elements of a Safety Committee

Acceptable elements for establishing a senior management safety committee as provided by DOE Procedure Manual 1B, MRP 4.19, DOE Guide 440.1-8, 12-27-06 and as outlined for implementation by the Pacific Northwest National Laboratory within the DOE Voluntary Protection Program were considered. They include:

Name – What is the name the safety committee will be known by?

Chartering authority – Who is chartering the safety committee? This is the authority the safety committee is accountable to (typically a representative of the leadership of the Laboratory such as a Management System Owner or senior line manager).

Purpose – What ESH&Q-related role does the safety committee serve? Why is it being established? What is it expected to accomplish?

Membership – Who will serve on the safety committee? How are they selected? Are there constraints on their service (term limits, approval, etc.)?

Leadership – Who will lead the safety committee? How are leaders selected? Are there constraints on the length of their service?

Responsibilities and/or Authorities (outputs) – What authorities and responsibilities does the safety committee have? How are their outputs used?

Resources (funding sources) – Where do resources for operation of the safety committee come from? Where do resources for actions from the outputs of the safety committee come from?

Periodic Review/Sunset Clause – What is the term of the charter, and how will the continuing need for the safety committee be reviewed?

Approvals – Who is approving the charter?

5 Variability of Breadth and Depth of DOE Contractor Fissionable Material Operations

There is substantial variability in the nuclear criticality safety operational risk and complexity throughout the DOE contractor community. That risk varies with broad spectra of fissionable material operations spanning the processing, transporting, and storing of very large quantities (i.e., orders-of-magnitude of minimum critical masses) with highly-reactive fissionable materials to less than minimum critical mass operations but with the potential for greater than minimum critical masses. In any case, senior management is responsible for establishing the necessary oversight of nuclear criticality risks.

The variability of the operations and risk is further compounded by the types of operations that are encountered throughout the DOE. A very minor, nearly imperceptible, nuclear criticality accident risk exists for the isolated handling, packaging, and transportation of a limited number of certain solid items. Such items include the DOE High Flux Isotope Reactor fuel cores that contain very large quantities of SNM that far exceed the minimum critical mass of <sup>235</sup>U. A similar circumstance exists for various weapons component items. In the other extreme, without a prudent NCS program that includes introspective and external examination and review, certain SNM solution operations with one or more multiples of minimum critical masses can pose a relatively large nuclear criticality accident risk. Therefore, it is prudent to apply a graded approach for establishing and implementing a Criticality Safety Committee (CSC).

- 6 Purpose, Structure and Operations of Criticality Safety Committees (CSC)
- 6.1 Purpose and Responsibility of CSCs

The purposes and responsibilities of CSCs are highly variable depending upon the magnitude of facility NCS program needs. Their primary purpose is to directly advise the SCM about the status and quality of their NCS program but may also provide NCS technical advice, program reviews, reviews of technical evaluations and approvals, and policy judgments.

#### 6.2 Guidance on when the establishment of a CSC should be considered

The need for establishing a CSC shall be evaluated whenever a facility's authorized inventory of special nuclear material in unrelated areas<sup>5</sup> exceeds 700 g of <sup>235</sup>U, 500 g of <sup>235</sup>U, 450 g of <sup>239</sup>Pu, or 450 g of any combination of these three isotopes and a NCS program has established NCS operations limits and controls. Additionally, the need for establishing of a CSC shall be evaluated whenever a facility's authorized inventory will exceed the subcritical mass limits specified in the American National Standard Nuclear Criticality Control of Special Actinide Elements, ANSI/ANS-8.15-1981 (R2005). The form of the fissionable materials and the facility operations (i.e., processing, transporting, or storing) should be considered within this evaluation. With the assistance of facility nuclear criticality safety (NCS) staff expertise or recognized knowledgeable and experienced NCS specialists, the final decision to establish, or not to establish, a facility CSC shall be determined, documented, and authorized by the SCM having responsibility for both fissionable material operations and contractor safety programs. The SCM is the sponsor and delegating authority for the CSC.

The establishment of an unneeded CSC will divert resources from other needed safety and production operations efficiencies. Conversely, the failure to establish a CSC to monitor the implementation of a comprehensive NCS program will not provide a balanced perspective of the program effectiveness. A CSC with a balanced representation (e.g., production supervision/management, NCS staff, quality assurance personnel) is needed to monitor a comprehensive NCS program and to advise the senior contractor manager (SCM) who has responsibility for both fissionable material operations and contractor safety programs and budgets. The decision to not establish or to establish a CSC is necessarily the responsibility of the SCM as is the determination for the depth and breadth of the CSC responsibilities. Those decisions and determinations are necessarily developed by the SCM with the consultation of highly knowledgeable and experienced experts in NCS and fissionable material processing operations.

Several fissile material processing sites within the DOE Complex have operated successfully without formal CSCs. A CSC is simply one tool that has proven effective, particularly for those sites with larger criticality control needs, in assisting SCM in monitoring the NCS program.

#### 6.3 Guidance on the selection of members and committee leadership

The selection of CSC Members shall be based upon the roles and responsibilities of the CSC. Those roles and responsibilities generally include the requirements outlined in ANSI/ANS-8.19-2005, *Administrative Practices for Nuclear Criticality Safety*, §4 Management Responsibilities. The CSC should be chaired by the SCM or a deputy to the SCM. Depending upon the inventories of fissionable materials, operations flexibility, and modifications it is appropriate for the CSC to be chaired by the deputy to the SCM and to be comprised of facility staff who are knowledgeable and experienced managers of discrete facility fissionable material operations, engineering support and development, nuclear criticality safety, and quality assurance CSCs are developed under the direction and authority of the SCM and as such the SCM may appoint additional members to the CSC as needed and may include non-facility experts in NCS or other relevant subjects.

#### 6.4 Recommended functional interfaces with operations and management

CSC functional interfaces with operations and management include operations and management membership on the CSC and their reporting about the status of their operations and the effectiveness of

<sup>5</sup> Individual areas may be considered unrelated when the boundaries between the areas are such that there can be no uncontrolled transfer of materials between areas, the minimum separation between material in adjacent areas is 10 cm, and the areal density of fissile material averaged over each individual area is less than 50 g/m<sup>2</sup>. This stipulation is applicable only to the three specific isotopes noted above (700 g of <sup>235</sup>U, 500 g of <sup>233</sup>U, 450 g of <sup>239</sup>Pu, or 450 g of any combination).

the NCS program. Frequently, the CSC may be represented on other SCM appointed executive committees.

6.5 Responsibilities and interactions with external organizations

The CSC responsibilities and interactions with external organizations are limited to the direction and authority from the SCM. However, the SCM may utilize the CSC, or its members, to interface with external-to-the-facility persons and/or organizations.

6.6 Authority of the CSC to recommend or direct safety related changes in programs and budgets

The CSC has an advisory and review role for the SCM and as such is empowered to advise the SCM about suggested changes in safety related programs and budgets.

- 6.7 Responsibilities of the CSC may include, but are not limited to:
  - Developing, reviewing, and promoting the SCM NCS policy
  - Reviewing NCS staffing needs and the adequacy of their independence from operations line management
  - Assessing the NCS staff members qualification program
  - Monitoring the overall quality of the facility NCS program to include, by sampling;
    - Written operating procedures to assess their accuracy and that they are organized for convenient use by operators
    - Materials control to include;
      - Procedures for material movement
      - Labeling and area postings regarding NCS parameter limits
      - Neutron absorbing materials presence and effectiveness
      - Control of personnel access to fissionable material
    - Line Management Supervisor
      - Effectiveness for the safe operations under their control
      - NCS knowledge
      - Operator training
      - Participation in the development and configuration control of written operating procedures
      - Verification of compliance with NCS specifications including the inspection, testing, and maintenance of engineered controls
      - Unambiguous identification of fissionable materials and good housekeeping
    - Nuclear Criticality Safety Staff
      - Technical guidance for the design of equipment and processes and for the development of operating procedures
      - Knowledge and familiarity with current developments in NCS standards, guides, codes, and computational methods
      - Use of knowledgeable individuals to obtain technical assistance as needed
      - Familiarity with fissionable material facility operations
      - Effectiveness in assisting supervision, upon request, with training of personnel
      - Effectiveness of NCS staff actions to monitor operations and facilities (a) for conformance to NCS requirements and (b) for changes or conditions that may not be fully addressed by NCS evaluations.
      - Quality of staff findings and reports to SCM regarding procedural violations and other deficiencies in the facility NCS program
      - Review of new or revised procedures impacting NCS

- Quality of NCS evaluations including
  - The identification of both normal and credible abnormal conditions by operations or other knowledgeable individuals
  - The explicit identification of controlled parameters, their associated NCS limits, and the effect of changes in the identified parameters
  - The detail, clarity, and lack of ambiguity to allow independent judgment of results by personnel familiar with the physics of nuclear criticality and facility operations and safety practices
- Utilizing external non-reactor fissionable material operations and NCS expert consultants as CSC members to provide independent external perspectives on the NCS program implementation and effectiveness
- Monitoring the configuration management system that identifies and controls changes to facility and process conditions important to nuclear criticality safety
- Reviewing
  - O The reliability, effectiveness, and bases for the use of criticality accident alarm systems and/or decisions to not use criticality accident alarm systems in the facility
  - The facility nuclear criticality accident emergency planning and response plans and/or decisions to not need such plans
- Evaluating the effectiveness of liaisons between so called line operations criticality safety officers (CSO) and facility nuclear criticality safety staff if the facility operations have personnel assigned asz CSOs
- Preparing and issuing the CSC annual report to the SCM documenting the results and recommendations, if any, regarding the status and quality of the NCS program and suggestions for any program improvements or modifications including program policy and/or budget issues. Following the determination of factual accuracy, the annual report shall be finalized, approved by the majority of the CSC membership, and transmitted as approved directly to the SCM with copies to no less than affected organizational managers. CSC members with a dissenting positions or votes shall provide minority reports to be included as an attachment to the CSC annual report.
- Ensuring that each of the above identified CSC responsibilities are reported to the SCM every three years

## NOTE: The role of a CSC is to provide NCS programmatic oversight not to perform line management safety functions.

### 6.8 Funding of the CSC

As authorized and established by the SCM, the support and funding for the activities of the CSC members should be provided by the SCM to ensure fiscal independence from the daily operating support and funding of the CSC member assignments.

#### Appendix A

## CSSG TASKING 2009-01 Date Issued: January 5, 2009

#### Task Title:

CSSG Position Paper on the Purpose, Structure and Operation of Criticality Safety Committees

#### **Task Statement:**

The CSSG is directed to develop a position paper on the purpose, structure and operation of criticality safety committees (CSCs) as applied to DOE sites. Points to be addressed include, but are not limited to:

- guidance on when the establishment of a CSC should be considered;
- guidance on the selection of members;
- recommended functional interfaces with operations and management;
- responsibilities and interactions with external organizations;
- authority of the CSC to recommend or direct safety related changes in programs and budgets;
- recommended responsibilities of the CSC; and
- interaction of the CSC with on-site criticality safety officers.

#### **Period of Performance:**

The position paper will be developed within forty-five days of the date the tasking is issued to the CSSG.

#### **Resources:**

The CSSG Deputy Chair will form a writing team composed of CSSG members. Contractor CSSG members of the writing team will use their FY09 NCSP CSSG support funding; DOE CSSG members of the team will provide funding from their site offices. CSSG emeritus members may be included in the team on a voluntary basis.

#### Task Deliverables:

Within thirty days of the date the tasking is issued to the CSSG the writing team will forward a draft position paper to the entire CSSG for comments.

Within fifteen days of the date the draft position paper is distributed to the CSSG the writing team will address all comments from the CSSG and incorporate any comments that are accepted. The writing team lead will submit the position paper to the CSSG Chair for transmittal to the NCSP Manager.

Task Due Date: February 20, 2009